Notice of International Competition
First edition of the annual SIAT YOUNG Award for young designers. Siat Young 2018

Rifugi minimi per senzatetto
Homeless Tiny Shelter
In the Heart of Turin

1. Subject
SIAT YOUNG – 2018 edition: Competition to select and promote the best proposals presented by young designers on the theme of "Rifugi minimi – Tiny Shelters" – small reception pods for the homeless, to use in periods of harsh weather conditions, temporarily located in central areas of the City of Turin within the general framework of services that the city's institutions and voluntary associations implement as *homeless shelter*.

2. Theme
The urban installation of small "shelter islands" for the homeless, made up of a combination of small basic units. We are looking for solutions for single, light-structure units to be used as minimal refuges – *tiny shelters* – and service activities. The "shelter units", in a minimum number of 7 and a maximum of 14, will be differentiated in part by characteristics and use (shelter, refreshment, store, sanitary assistance; toilets and washing facilities; refuges for individuals and for couples; a common room). Thought must also be given to: ease of assembly and dismantling, materials, colours, eventual graphics for communication, for characterizing these tiny houses, almost archetypes of an architecture that returns to being a shelter and a call for the essential.
Equally important is the insertion of these islands into the urban fabric, the capacity to control relations between the different parts and the rest of the city. It is an urban project of a temporary seasonal installation, which can be adapted to different urban contexts (public gardens, empty urban spaces, squares), then taken down and reused. Some areas have been identified with the characteristic of being close to the city centre and thus near places in which it is possible to come across those people – men and women with housing problems – who do not make use of structured housing services.

3. Objective
To bring out and flag practical solutions in gardens, squares or other urban places to the City or Bodies that share the objectives of the Competition.
The social project might also envisage people who are currently or have been "homeless" being involved in the stages of setting up and running the minimal refuges – *tiny shelters*.
The contestant must bear in mind the characteristics of the relevant environmental and historical context represented by the two central areas of the City of Turin identified to host the small emergency "island shelters": Area 1 – Teatro di Torino (ex Teatro Scribe); Area 2 – Giardini reali inferiori (lower Royal Gardens). The contestant will choose one of the two areas to develop his/her proposed design, knowing that it must be adaptable to both areas.

4. Credits
Promoting body:
Società degli Ingegneri e degli Architetti in Torino non-profit cultural association since 1866.
Competition curator and planner:
Paolo Mauro Sudano
Scientific committee:
Luca Barello, Francesca De Filippi, Vanda Fallabrino, Roberto Fraternali, Cristina Giudice, Elena Greco, Maria Teresa Martinengo, Beppe Serra, Chiara Surra, Elena Ursone

5. CV Profiles of the Jury
1. Carlo Ostorero, SIAT, president of the jury
2. Marcello Balzani
3. Luca Barello
4. Elena Barthel
5. Nicolas Detry
6. Renato Morganti
7. Burkhard Pahl
8. Nicholas Ray

The jury.

1. Carlo Luigi Ostorero. Professor in Urban and building sustainable refurbishment and restoration at *Politecnico di Torino*. He also is the chief of "Omnia Project" a multidisciplinary research project carried out on the design of the future smart city. For over 10 years, he has been adjunct Professor in the Faculty of Architecture at the University of Parma, and since 2010 lecturer of Masters Course coordinated by the architect Mario Cucinella at the Istituto Europeo di Design in Turin. Researcher at the Politecnico di Torino in the field of "Building Techology" currently conducting research in the Department of Structural, Geotechnical and Building Engineering and lecturing on the M.Sc and PhD courses.
Throughout his career, Carlo Ostorero has sought to conduct aspects of research and scientific experimentation in parallel with the development of the professional activity in the fields of architecture, urbanistic and industrial design according to the principle of "design as a learning process". In this context, he entered numerous national and international competitions, following planning and design development providing managerial control at multidisciplinary collaboration level with specialised colleagues. In 2000, Carlo Ostorero refocused his professional activities by founding the Studio Dedalo Architettura.

2. Marcello Balzani. Associate Professor at the Department of Architecture of the University of Ferrara, Vice Department Manager. Since 2006, he has been Director of the DIAPReM Departmental Center. In these years of management, he develops agreements with research centers, ministries and institutions, and he involves the Center in scientific and industrial collaboration activities and training agreements in Italy and abroad. Scientific Responsible of the Teknehub Laboratory for the Emilia-Romagna High-Tech Network Construction Platform.
Since 2017 he has been President of the "Clust-ER Edilizia e Costruzioni" Association. Member of the Technology Transfer Commission and then the "Terza Missione" Commission of the University of Ferrara. Member of the Board of Directors of Sealine, Departmental Research Center for the development of coastal systems and tourism of the Department of Architecture of the University of Ferrara. Member of ICOMOS Italia. Since 2017 he is Director of the II Level post graduated Master "eBIM: existing building information modeling for construction management". Member of the IDAUP - International Doctorate in Architecture and Urban Planning, coordinated by the Department of Architecture of the University of Ferrara. Member of the UID, Unione Italiana Disegno. Since 2006 Director of magazine «Paesaggio Urbano».

3. Luca Barello. Architect, PhD in Architecture and Building Design, Professor in Charge in Architectural Design (Politecnico di Torino, NABA-Design-Milano), Visiting professor (LAU-Byblos, Université Laval-Québec), tutor of workshops and educational building sites. Researcher on open urban spaces, historical fabric transformation methodologies, redefinition of the Alpine landscape. Member of Istituto di Architettura Montana, founder and president of *atelier mobile* (www.ateliermobile.org) nomadic design+build school in public spaces with communities and craftsmen. Projects and architectures in the Alpine region, the Balkans and the Middle East related to

the site and the surrounding context, prizes awarded to the Novalesa Cemetery Renovation and the Adhamyia District Renovation competition, Baghdad. Designer of experimental objects and prototypes based on recycled materials or change of use. Graphic designer of logos, magazines, books and posters for cultural institutions and associations.

4. Elena Barthel. Graduated in architecture (University of Florence 2000), member of the Institute of Architects of Florence (2001), PhD at the Department of Urban Planning (University of Florence 2010). She taught Urban design thesis studio (Planning Department, Florence School of Architecture 2001-8), Architecture Design Studio at the Architectural Association in London (2006-8), as Assistant professor for Auburn University School of Architecture at the Rural Studio, a community based, design and build program (2008-16). She lectured at Tel Aviv Eco Week, Quito Biennale, Rome Eco Week, Rhode Island School of Design, Turin Polithecnic, Florence School of Architecture, Trento University of Engineering (2010-present).
In 2014 she co-authored *Rural Studio at twenty: Designing and Building in Hale County, Alabama*, published by Princeton Architectural Press. In 2016 with Rural Studio, she co-designed "Forum" for the exhibit "Architecture as art", at the Milan Triennale and the "Theatre of the useful" for the XV Venice Biennale "Report from the front", installations producing two zero waste projects to focus on a responsible attitude towards the resources that we utilize every day.

5. Nicolas Detry. He studied architecture at the Institut Supérieur d'Architecture Saint-Luc in Liège, Belgium. He earned his post-master degree at the University of Rome La Sapienza, Scuola di specializzazione in restauro dei monumenti, with the final thesis: Domus aurea, a conservation project and urban planning of Colle Oppio park in Rome. In 1992-93, he worked in Torino, at the architectural office of prof. architect, Andrea Bruno consultant for UNESCO. For five years, he worked at the office of Pascal and Pierre Prunet, Chief Architects of Historic Monuments in Paris (ACMH). His study of Carebuk project in Boukhara, Uzbekistan won him the prize Trèfle d'or by the Fondation Belge de la Vocation (www.vocatio.be).
In 2002, as an associate architect for the RTP Croci-Repellin (prof. ing. Giorgio Croci and ACMH Didier Repellin), he won the competition for the consolidation and the restoration of the Real Albergo dei Poveri, a XVIIIth century building in Naples, Italy. In 2006, associated with Pierre Levy and Christophe Gillet, he launched a private architectural office in Lyon (France), specialized in restoration of architectural heritage and construction of new eco-buildings (www.detry-levy.eu).
In 2016 he presents a doctoral thesis at the university of Lyon about the restoration of "martyred heritage" in Europe during and after the Second World War (*Le patrimoine martyr et la restauration post bellica en Europe*). From September 2017 he is assistant professor at the Ecole Nationale Supérieure d'Architecture de Clermont-Ferrand (ENSACF). His architectural activity is tightly associated with research and writing experiences, connecting conservation and heritage with urban and architectural compositional aspects, research into the history and theory of architectural restoration in Europe. He is a member of ICOMOS France.

6. Renato Morganti. Full professor in Building Technology at Università dell'Aquila, Ingegneria Civile, Edile – Architettura, Ambientale Department. Member of Doctorate professor board. He taught at Politecnico di Torino and at Facoltà di Ingegneria in Cassino. He has been leading seminars as well as developing researches by the HUT, Helsinki University of Technology and the Finnish IIC, International Institute for Conservation. Architecture and building typologies in contemporary production, modern construction Italian history, typologies investigation and small urban nucleuses design in Abruzzo and innovative sustainable architecture technologies have been his research main topics at any level: local, national and international.

7. Burkhard Pahl. Prof. Dipl.-Ing. Architect BDA (Association of German architects). Architect and director of the Institute of building design and management, Leipzig University; head of Rektoratskommission Universitätsneubau at Augustusplatz. Since 1999, Dean of study affairs, department civil engineering at Leipzig University; project partner for interdisciplinary research projects. Long-time teaching experience in architecture and civil engineering in branches like building construction, structural design and design at TU Darmstadt and Leipzig University. Experience in knowledge transfer and multimedia learning (e-learning). Project partner in the successfully installed learning-program WIBA-Net (material for the building industry) with 6 partners from universities; especially constructional and creative basics, creation of an architecture surface; another "e-learning" project "I-Kult" about basics of building culture.
Several successfully completed research projects and publications considering sustainable resources in buildings, about questions of town development and shrinking cities, sustainable development and special methods of construction. Notable successful competitions (incl. 11 front-rankings), prices and honourings for realised constructions, i.a.: "honouring" German steel construction price 2003, IOC/IAKS Award 2003, "steel innovation price" Renault Traffic Design Award 2006, "Honourable mention" International Biennial Barbara *Cappochin* Architecture Prize 2007, Hessian timber construction price 2008, several BDA prices, i.a.

8. Nicholas Ray. Reader Emeritus in Architecture at the University of Cambridge, Emeritus Fellow of

Jesus College, Cambridge, and Visiting Professor in Architectural Theory at the University of Liverpool. He is the author of numerous articles, and five books to date: *Cambridge Architecture, a Concise Guide* (Cambridge University Press), *(Re)Sursele Formei Arhitecturale* (Paideia, Rumania), *Alvar Aalto* (Yale University Press), *Architecture and its Ethical Dilemmas* (Routledge), and an introductory book for students, with Christian Illies, *Philosophy of Architecture* (Cambridge Architectural Press). In December 2015, with Francisco Gonzalez de Canales, and also with Yale University Press, he published *Rafael Moneo: Building, Teaching, Writing*.
He is a practising architect, and director of NRAP Architects in Cambridge. Much of the practice's work has been for tertiary education, and in the context of listed buildings.

13. Partners
«Atti e Rassegna Tecnica», since 1867 SIAT official magazine.

Searching for Areas for Small Nuclei of Tiny Shelters

Area 1. Teatro di Torino (Scribe)
Urban void left by the Teatro di Torino (ex Teatro Scribe) near the Mole Antonelliana. The bombings of 1942 irreparably damaged the theatre, built in 1857 to a design by architect Giuseppe Bollati. It was an avant-garde theatre and then the Auditorium for RAI Television.
https://goo.gl/maps/vmJyNBvgasr
coordinates:
45°04'07.8" N, 7°41'32.1" E
45.068833, 7.692250

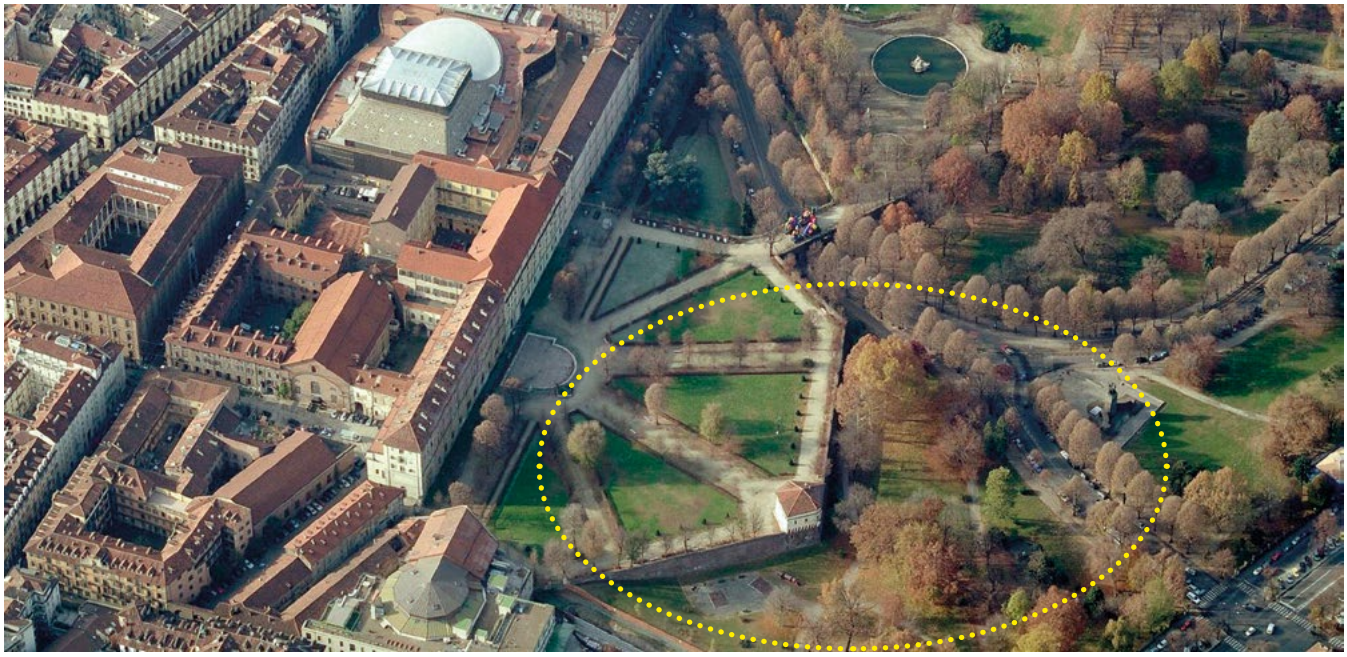
Searching for Areas for Small Nuclei of Tiny Shelters. Area 1. Teatro di Torino (Scribe). Fotografia aerea Google.

Teatro di Torino (Scribe).

Area 2. The lower Royal Gardens (Giardini Reali)

Northern entrance to the historic city centre through the bastions of the old city walls and close to Palazzo Reale (the Royal Palace). The public garden is overlooked by the Bastione di San Maurizio (Bastion of San Maurizio).

https://goo.gl/maps/k9mN62yV3aD2
coordinates:
45°04'17.7" N, 7°41'25.5" E
45.071586, 7.690418



Searching for Areas for Small Nuclei of Tiny Shelters. Area 2. The lower Royal Gardens (Giardini Reali). Fotografia aerea Bing.

The lower Royal Gardens (Giardini Reali).

Isole di accoglienza: i progetti del concorso "rifugi minimi"
Shelter islands. the "tiny shelters" competition projects

LUCA BARELLO

Abstract
I progetti presentati al concorso hanno mostrato una varietà di approcci, soluzioni insediative e tecnologiche da parte dei giovani progettisti, facendo emergere questioni di installazione e aggregazione, formali, costruttive e di utilizzo che hanno indotto la giuria ad assegnare il primo premio ex-aequo a due progetti rappresentativi di due modi esemplari di affrontare il tema: una soluzione minimale, domestica e autocostruibile, l'altra fortemente espressiva, organica e composita per materiali e tecniche realizzazione.

The projects submitted by the young designers to the competition showed a variety of approaches, settlement and technological solutions which brought out installation and aggregation, formal, constructive and use issues. This led the jury to award ex-aequo the first prize to two projects representing two exemplary ways of facing the topic: a minimal, domestic and self-built solution, the other one strongly expressive, organic and composite in materials and building techniques.

Luca Barello, architetto, dottore di ricerca in Architettura e progettazione edilizia, docente a contratto di composizione architettonica al Politecnico di Torino, fondatore e presidente di atelier mobile, associazione culturale che organizza workshop di progetto e costruzione nello spazio pubblico.

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Isole di accoglienza puntuali nel cuore della città: il bando di concorso sintetizza così la richiesta di progettare rifugi provvisori e temporanei per homeless, unità minime elementari costituite da rifugi e unità di servizio, unità di agile messa in opera e rimozione caratterizzate da chiare forme di comunicazione: *piccolissime case, quasi archetipi di un'architettura che torna a essere rifugio e richiamo all'essenziale*.
Luoghi speciali ma inseriti nel contesto urbano, ospitali e protettivi, funzionali e transitori: i progetti presentati al concorso, la maggior parte dei quali realizzabili in tempi rapidi senza eccessiva difficoltà, hanno dimostrato la capacità dei concorrenti di comprendere lo spirito e l'urgenza del tema, riuscendo al contempo a porre in evidenza una serie di questioni di fondo da dirimere per realizzare i rifugi temporanei più adatti alla situazione contingente e a un reale utilizzo. Sono preferibili volumi elementari e solidi o articolati e leggeri, forme domestiche e rassicuranti, oppure più espressive che mostrino la loro eccezionalità e temporaneità, moduli ricchi di colore o neutri? È più accogliente un'aggregazione libera o una composizione che crei aperture e chiusure, spazi protetti e aree comuni esterne? Sarà più facilmente accettato un progetto nato dal basso, con materiali a basso costo e autocostruzione da parte di possibili fruitori, oppure una realizzazione basata su materiali ad alto contenuto tecnologico dal montaggio e trasporto semplificato?
Il complesso intrecciarsi di queste domande emerge con evidenza in due proposte, entrambe sviluppate con coerenza in tutte le loro fasi, due modi di intendere il rifugio temporaneo esemplari e antitetici per forma, aggregazione, modi costruttivi e utilizzo, che la giuria ha scelto di premiare ex aequo

considerandoli portatori di idee da sviluppare, confrontare e discutere per una futura realizzazione.
Essenziale nei suoi moduli minimi, *Sharing Arcipelago* (Francesca Turnaturi, Valeria Comazzi, Fabio Vignolo, Elena Rudiero) è un progetto incentrato su un processo sociale di realizzazione a partire dalla definizione del luogo di insediamento con un intervento di colorazione del sedime su cui si poggiano moduli in compensato rivestiti da teloni impermeabili che rendono singolare ciascuna unità abitativa, mentre due corpi allungati separati da un passaggio coperto centrale ospitano tutti i servizi comuni. La distribuzione sgranata delle unità crea uno spazio comune fluido e ramificato, punteggiato da arredi realizzati con la stessa tecnologia delle abitazioni, costruzioni a secco per le quali è previsto il coinvolgimento degli ospiti stessi.
Aereo e organico, *Air Shelter* (Andrea Cappellaro, Stefano Clerici) presenta invece un'aggregazione di moduli leggeri con un eco aerospaziale, unità disposte a semicerchio come petali di fiori, adattabili al terreno con gambe retrattili, bozzoli leggeri e gonfiabili montati su una base in vetroresina che durante il trasporto è il contenitore di tutti gli elementi da montare. Forme curve, combinazione di materiali, semplicità aggregativa contribuiscono a trasmettere un'immagine accogliente e dichiaratamente temporanea.
La contrapposizione tra domesticità e immagini abitative insolite, tra aggregazioni compatte e aperte, tra low-tech e high-tech emerge anche attraverso gli altri due progetti premiati che mostrano anch'essi attenzione alle singole unità come alla loro aggregazione, agli spazi interni ed esterni, alla sostenibilità e alla semplicità del processo costruttivo.
Un villaggio di isolati a corte è la proposta del progetto terzo classificato (Jassmin Ali, Chiara Cesareo, Chiara Gerini), composizione di spazi chiusi e aree verdi in cui le unità, assemblabili come sequenze di portali di legno, hanno interni suddivisi in aree funzionali e arredi modulari. Un insieme solido e domestico, con un'idea di stabilità e maggior permanenza e una particolare cura dedicata agli spazi abitativi. *HomePlus* (Ivan Zito, Antonio Filippo Tandoi, Maria Sofia Guarente), progetto menzione d'onore, è caratterizzato da una sperimentazione spaziale ha echi in abitazioni temporanee, padiglioni e case di vacanze del dopoguerra. Poliedri lignei accostando le loro facce esagonali creano insiemi lineari e ramificati che consentono molteplici combinazioni e semplici divisioni interne. Lo straniamento dello spazio abitativo è mitigato dalle molteplici aperture, un raffinato progetto grafico basato sulla traforatura di pannelli colorati in corrispondenza degli accessi consente un'immediata riconoscibilità delle funzioni di ciascun modulo.
Negli altri progetti troviamo modi di insediamento che spaziano da una distribuzione libera ad aggregazioni compatte e una certa varietà di materiali e sistemi costruttivi. Tra i moduli isolati, gli astratti cubi in policarbonato di *Mote*^{2} (Francesco Rosa Brusin) hanno superfici riflettenti evanescenti e grande attenzione al comfort ambientale, mentre i parallelepipedi composti da cornici modulari (Laura Romanò, Sara Farzi) sono una declinazione diretta dei container con grandi aperture unicamente sul lato corto. Il modello del villaggio è sviluppato con una corte di prismi pentagonali da *New Scribe Microcity* (Concetta Tavoletta, Fabio Baratto, Antonio Soreca, Gianmaria Radice, Kun Peng, Rosalia Mezzacapo) che crea un'aggregazione compatta ma aperta; Diana Aleksova, Petya Ivanova allineano invece scatole sfaccettate lungo un asse longitudinale, i contenitori di *Home+* (Alba Pizzorni, Maria Pizzorni) associano a volumi di facile trasportabilità la forma familiare della casa archetipica. L'insediamento si risolve infine in un volume unitario in due progetti: una cupola protettiva e leggera caratterizza *Riparo torinese* (Leonardo Canfailla, Giulio Galasso, Loris Luigi Perillo, Silvio Lussana) in cui una membrana leggera in PVC copre un insediamento circolare di moduli prefabbricati, mentre blocchi di cartone definiscono gli spazi di *Just a Man* (Onur Demir) aggregati in un unico volume compatto.
In una valutazione generale dei lavori appare chiaro come alcuni temi, dalle modalità insediative alle soluzioni costruttive, siano stati diffusamente esplorati dai concorrenti, mentre altri, quali gli arredi o la comunicazione, avrebbero ancora ampi margini di sviluppo. D'altro canto la qualità e il grado

Premiazione Siat Young 2018, Fabbrica delle E, Gruppo Abele (foto R. Liuzzi).

di elaborazione dei progetti vincitori è tale da spingerci a incoraggiare una sperimentazione sul campo attraverso la costruzione del prototipo di un modulo di entrambi. Un primo passo per rispondere alle domande emerse da questo concorso con una verifica sul campo, proposta che a nome di tutta la giuria invitiamo a raccogliere per iniziare un processo che possa portare alla costruzione di reali isole di accoglienza.

Francesca Turnaturi, Valeria Comazzi, Fabio Vignolo, Elena Rudiero – Torino (foto R. Liuzzi).

Ivan Zito, Antonio Filippo Tandoi, Maria Sofia Guarente – Roma (foto R. Liuzzi).

Andrea Cappellaro, Stefano Clerici –Mendrisio (foto R. Liuzzi).

Jassmin Ali, Chiara Cesareo, Chiara Gerini – Genova (foto R. Liuzzi).

1st, ex aequo
40551708Z8
Francesca Turnaturi, Valeria Comazzi, Fabio Vignolo, Elena Rudiero
Torino

1st, ex aequo
04350113U5
Andrea Cappellaro, Stefano Clerici
Mendrisio

3rd
52370816C4
Jassmin Ali, Chiara Cesareo, Chiara Gerini
Genova

4th, mention
51301811R7
Ivan Zito, Antonio Filippo Tandoi, Maria Sofia Guarente
Roma

23541710G5
Francesco Rosa Brusin
Torino

05591818A8
Concetta Tavoletta, Fabio Baratto, Antonio Soreca, Gianmaria Radice, Kun Peng, Rosalia Mezzacapo
Aversa (CE)

22273018U5
Alba Pizzorni, Maria Pizzorni
Avigliana (TO)

58222114S4
Leonardo Canfailla, Giulio Galasso, Loris Luigi Perillo, Silvio Lussana
Negrar (VR)

18022817G5
Diana Aleksova, Petya Ivanova
Berlin

0649141506
Laura Romanò, Sara Farzi
Milano

38452610O8
Onur Demir
Torino

1st, ex aequo

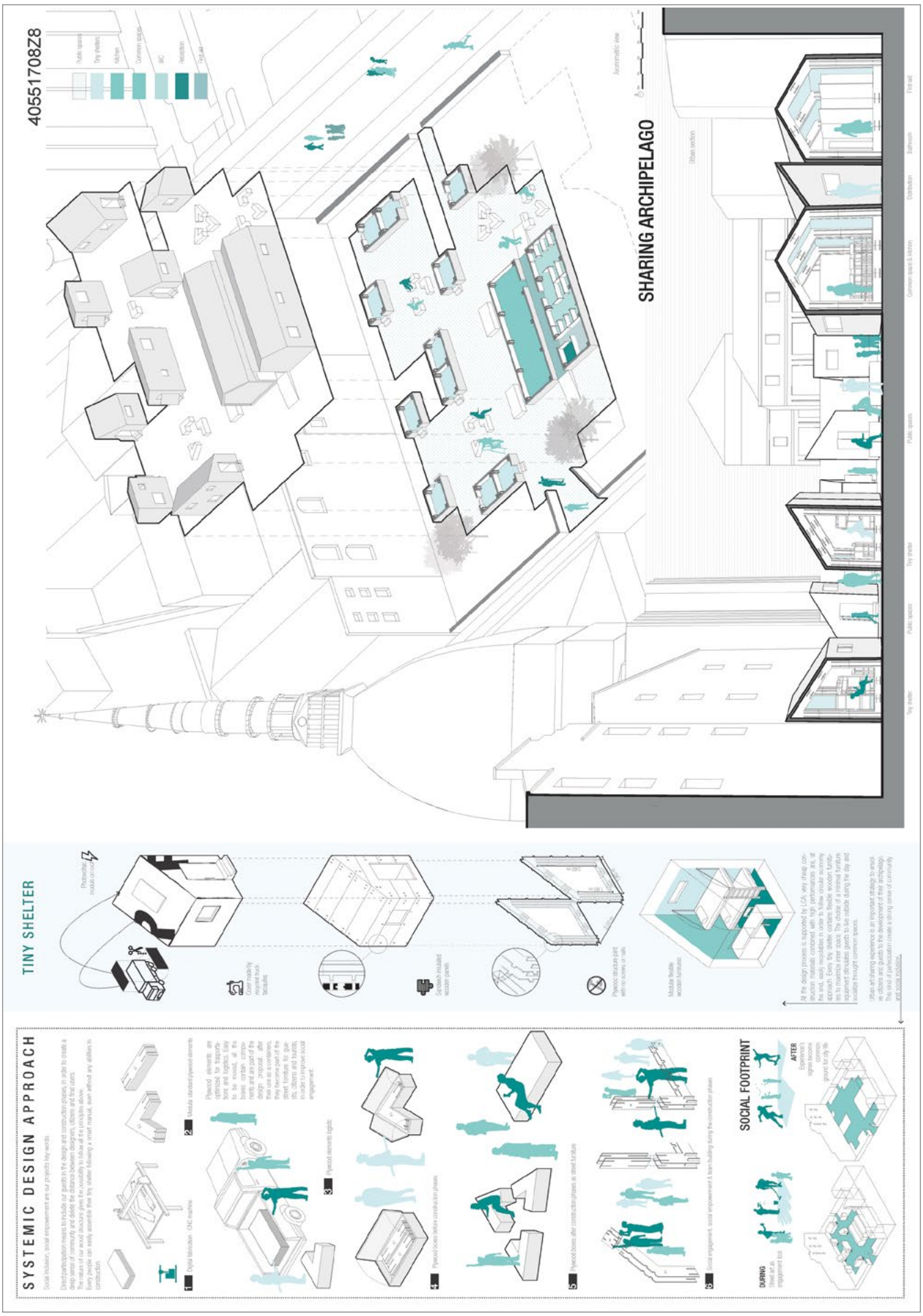
40551708Z8
Written Account

FRANCESCA TURNATURI, VALERIA COMAZZI, FABIO VIGNOLO, ELENA RUDIERO

TORINO

To Inform, to Communicate, to Share and to Participate, to Host and to Learn, one from the other: think about a message and bring people to meditate on.
It is the sequence of actions that we imagine for our project. Not a physical space, not a building but a process which to be mostly shared and which will prove to be successfully.
This reason why we chose to develop our idea in the middle of urban historical territory of Turin city, in the center of urban life, where inhabitants and tourists crowd streets during all day.
Engagement of civil society (district inhabitants, students associations) starts first with the realization of the "infrastructure" where the tiny shelters are developed. It is a coloured overground area, which identifies and characterize project's external space and it will remain after disassemble for future reference.

Main aspect of our proposal is the constructive system, based on prefabrication of constituent elements of single dwellings: very dry technology made by elements of plywood link together by simple joints without screws and nails. This method aims to maximize the manufacturing cost reduction and it permits to be assembled by hosts. The idea is to purpose a cycle with generated additional social engagement and, as a consequence, social enpowerment.
Sandwich-insulated panels cover the structure. They are hook to the building through keystone and throught male-female junctions one to the other. These panels have two functions, the first one is to repare hosts from the cold temperature, the second one is to support the frame structure upwind, giving more stability and solidity to the shelters. Recycled tarpaulins, which as usual cover trucks, are recycled and sewes to form the external cover of the module. Like the famous glamour sack made by the same material, we guess that this idea can be valid and cheap solution, able to add to the material performances also the urban and colorful aspects to the shelters island.
All the structure components (including tarpauling which covers and protects from the atmospheric agents), are packed and transported into specifically defined wooden boxes able to be, as assembled structures, changed into temporary street furnitures.
The island becomes a SHELTER PATCHWORK, a physical space to trigger and mantain a system of social and functional relations according to a linear, simple and incisive scheme. The shelter are oriented to form microspace around a main building. Here there are the public functions: it is social relations space, where people eat, made conversation and exchange ideas, where people play games, read or learn italian language or watch tv. This room, with kitchen module and depot, is located side by side with a distribution corridor that connects common spaces with toilet, first aid room and reception.
The tiny shelters are located after a careful analysis of the project area, in the area with greatest solar exposition to guarantee the best comfort to the people.


4055170828
Public spaces
Tiny shelters
Kitchen
Common spaces
WC
Reception
First aid
Axonometric view
SHARING ARCHIPELAGO
Urban section
Tiny shelter
Public spaces
Tiny shelter
Public spaces
Common space & kitchen
Distribution
Bathroom
First aid
TINY SHELTER
Prefabricated module construction
Cover made by recycled truck tarpaulins
Sip-Sheath insulated wooden panels
Plywood structure joint with no screws or nails
Modular flexible wooden furniture
SYSTEMIC DESIGN APPROACH
Social inclusion, social empowerment are our projects key-words.
Direct participation means to include our guests in the design and construction phases, in order to create a shared sense of ownership and delegate the responsibility for design and care of the cabins.
Every people can easily assemble their tiny shelter following a smart manual, even without any abilities in construction.
1 Digital fabrication - CNC machine.
2 Modular structure/plywood elements
Plywood elements, are optimized for transportation and assembly. They are modular, all the boxes contain common parts and are part of the design proposal: after their use as a containers, they become part of the street furniture for guests, citizens and tourists, in order to provoke social engagement.
3 Plywood elements logistic
4 Plywood boxes before construction phase.
5 Plywood boxes after construction phases as street furniture
6 Social engagement, social empowerment & team building during the construction phase.
SOCIAL FOOTPRINT
DURING
Street art as engagement tool
AFTER
From a neglected space to common ground for city life
At the design process is supported by LCA, very cheap construction materials combined with high performances and a modular design approach are the keys of our sustainable design approach. Every tiny shelter contains flexible wooden furniture to maximize inner space. The choice of a minimal furniture equipment stimulates guests to live outside during the day and socialize through common spaces.
Urban art-sharing experience is an important strategy to envolve citizens and guests to the development of their archipelago. The kind of participation creates a strong sense of community and social cohesion.

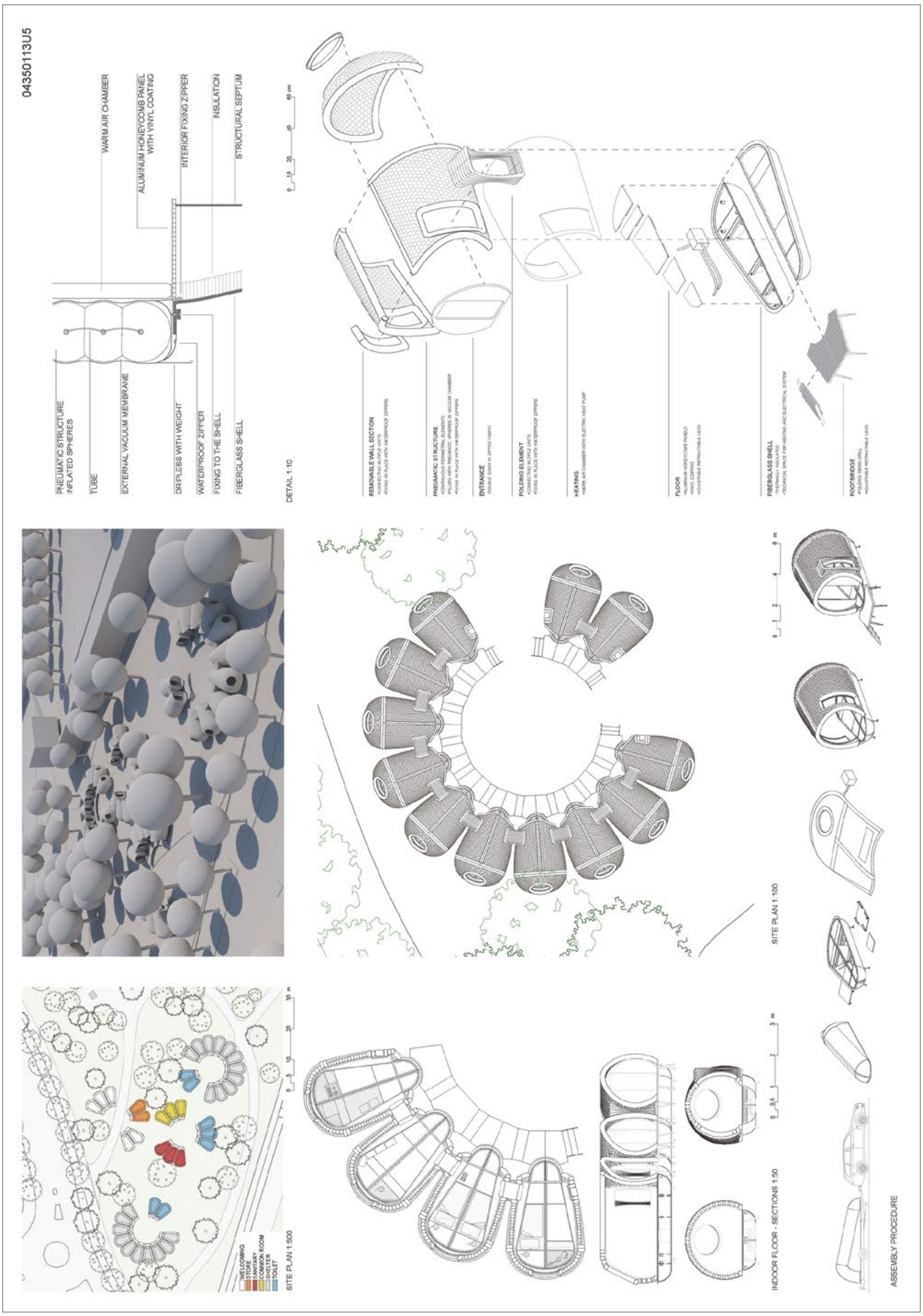
1st, ex aequo

04350113U5
Air Shelter

ANDREA CAPPELLARO, STEFANO CLERICI

MENDRISIO

The basic module guarantees a closed, pleasant, sheltered space for homeless during the cold winter nights, it can accommodate single or double beds and it's completely free-standing, with all the systems required already installed under the floor panels. It's compact and lightweight, so it can be moved and placed by few people, easy to assemble and extremely functional and flexible, able to adapt to any terrain and requirement. More modules can be joined internally and externally in order to meet the needs of the functions that require more space, such as sanitary assistance, store, refreshment and common rooms. The use of a drop-shaped profile allows you to easily connect the modules and create compact complexes that are developed a sunburst. This geometry ensures considerable spatial comfort, air and lighting; it also creates a geometric center that serves as a square, a meeting point for the community.
The module is essentially composed of two basic elements, a rigid fiberglass shell and an inflatable cover. The fiberglass shell is composed of two symmetrical hulls, connected by mechanical joints; it creates a teardrop plant of 8 m2, lifted from the ground by adjustable legs, already arranged inside the shell.
In order to stiffen the hulls and make space for storage and technical equipment, structural partitions are placed within them. The height of the shell of 60cm lets you accommodate all the plant that allows it to remain self-sufficient.
The floor is fitted inside the upper perimeter, it is composed of aluminum honeycomb panels with vinyl coating; the division is given by the fiberglass septa and they can be raised and lowered in order to obtain the necessary internal furniture. The elements, once lifted, are supported by foldaway legs that lies on the structural partitions.
Fiberglass is the most appropriate material because it combines lightness, low costs, and resistance to mechanical elements and bad weather.
The inflatable cover is anchored to the rigid shell through waterproof zippers, it's composed of two separated air chambers, the external one, 20cm of thickness, acts both as structure and insulation, and the internal one thinner, around 5cm, works as insulation and heating system, is connected to an electrical heating pump and inflated with heated air.
The structural chamber consists of two separate chambers one inside the other; the inner one has a ball geometry in which the air is inflated, once inflated, the air is drawn in from the outer chamber. The result is an extremely rigid geometry in which the spheres take on hexagonal shapes and work together. With this vacuum system, an incredible mechanical resistance and durability is guaranteed. A double-layer canvas door is attached to the inflatable structure and gives access to the warm indoor space.
In the design of this unit, particular attention was given to the dimensions, packaging, ease of transport and assembly. The entire house, including all its components, is presented as a Kit enclosed within the two hulls. The dimensions and weights are on a human scale, assembly can be done without the use of machinery. The result of these guidelines is a minimal living machine, in which all the elements that compose it interact with each other, completing themselves to form unity.


04350113U5
PNEUMATIC STRUCTURE INFLATED SPHERES
TUBE
EXTERNAL VACUUM MEMBRANE
DRIPLESS WITH WEIGHT
WATERPROOF ZIPPER
FIXING TO THE SHELL
FIBERGLASS SHELL
WARM AIR CHAMBER
ALUMINUM HONEYCOMB PANEL WITH VINYL COATING
INTERIOR FIXING ZIPPER
INSULATION
STRUCTURAL SEPTUM
DETAIL 1:10
REMOVABLE WALL SECTION
PNEUMATIC STRUCTURE
ENTRANCE
FOLDING ELEMENT
HEATING
FLOOR
FIBERGLASS SHELL
FOOTBRIDGE
SITE PLAN 1:500
WELCOMING
STORE
GALLERY
COMMON ROOM
SHELTER
TOILET
SITE PLAN 1:100
INDOOR FLOOR - SECTIONS 1:50
ASSEMBLY PROCEDURE

3rd

52370816C4

JASSMIN ALI, CHIARA CESAREO, CHIARA GERINI

GENOVA

The project base consists of a construction module of 1,30x4m, which can be assembled in different ways: two of them form a single shelter, three of them form a double one and more of them as required create the shared areas.
The structure consists of a wooden conformation composed of: a slab, four columns and two beams; walls with wooden bracing and insulation with natural and recyclable materials, ventilated roof covered in polycarbonate and a rainwater collection system.
The components can be easily transported and assembled through traditional techniques: the wooden columns, the slab and the roof fit together with male and female joints, with the help of metal brackets and nails. The cladding panels are nailed to the wooden columns, while the insulation, a layer of stone wool and one of cork, is placed inside. Compactability and durability are guaranteed. Insulating materials ensure efficient thermal and acoustic insulation and the ventilated polycarbonate roof can withstand the weight of snow and prevent humidity problems. Once the minimum 1,30x4m unit is mounted, other units are spatially combined in order to reduce the heat loss and to create private areas that are harmoniously alternated with shared spaces, integrated in the general system of the "island". The first visible unit from Via Montebello, is the one related to the primary reception, a space divided into a reception desk, where the most expensive items may be deposited, and a closed room dedicated to orientation interviews, aimed at drawing up a personalized project or simply as a private listening area. Connected to this unit there is a small "toilets unit" and the infirmary, considered as a primary service during emergency situations.
The unit visible from via Benevello is another shared space (also opened to the public), intended as "hot drinks distribution unit"; it has been intended mainly as a kitchen, designed to give guests the opportunity to cook their own dishes as a path towards self-assertion. This area has its own bathroom.
Other shared areas are placed in the centre of the "island": "the common room unit" and a second identical space set up for possible laboratory activities, for example, for the construction of some parts of the "island" furniture.
The shelters are designed to be able to contain all the personal effects and to accommodate basic activities such as reading, consuming food, etc. In addition, an entry gap has been added, connected to the primary modular structure, customizable for example in a small "living room", in a space for pets or simply in an additional storage space.
Although the project needs to be an immediate response to emergencies, it should also offer the possibility for the guests to live with dignity and to additionally rebuild their future. This justify the choice to provide each single and double shelter with a private toilet which has the intention to improve the guests' quality of life and at the same time to empower them through the self-management of their own house.
All the shared modules and the double shelters have been designed providing accessibility for the disabled, except for the single shelter which can be made accessible through small modifications of the internal furniture.
The planimetric conformation designed for area 1 leaves open the discussion on a possible redevelopment and reuse of the front part of the theater, which becomes a square/transit area. In any case, all the modules can be adapted to any location and type of terrain, thanks to the adjustable foundation plinths.


52370816C4
Plan and section of the individual refuge
Scale 1:50
polycarbonate sheets
substitutary wood structure
ventilated roof: cork panels and stone wool
wood panels with waterproofing membrane
roof second wood structure for water storage
main wood structure: columns and roof beams
3 cm wood panels
wood frame structure diagonal bracing
3 cm cork panels
13 cm stone wool
3 cm wood panels with waterproofing paper
3 cm wood panels, base for the recycled wood floor panels
3 cm cork panels
wood base structure filled with 13 cm rock stone
4 cm recycled wood panels with waterproofing membrane
steel foundation plinths
Building type exploded diagram
Perspective section AA
Via Giuseppe Verdi
Via Montebello
Monumental Meeting Place Theatre of Turin
Individual refuge perspective view
Combination of the 'shelter units'
Overall plan of the 'shelter island'
Scale 1:100

4th, mention

51301811R7
Home+ Tiny Shelter

IVAN ZITO, ANTONIO FILIPPO TANDOI, MARIA SOFIA GUARENTE

ROMA

HomePlus Tiny Shelter wants to load architecture of the meaning of "humanitarian". HomePlus is the perfect place for the homeless. It has the responsibility makes the new space become a scenario of life, that flows inside, and it's a symbol of sharing and kindness. The project is placed as a host island in the garden of "Giardini Reali Inferiori" and is extremely flexible and adaptable in natural or urban context (as "Turin theatre area") and represents a really eco-friendly future home. The small elementary units is a hexagon. The tiny hexagon is assembled in two steps. The first phase consists in interlocking the basic pieces (horizontal closing hexagons, wall and angular hexagons). The second step is the junction between two or more modules to build the aggregate. It works through a male-female system and mechanical fixing. The system is versatile and adaptable to any orographic context (mountain or flat). In order to be adaptable to any kind of weather conditions, the roof could be: flat, inclined by 30% and by 60%, that is perfect for snow condition. The continuous module surfaces ensure heat insulation and no thermal bridge. The composition of modules create even an unique space and optimal thermal condition especially for the cold and long. The polyhedron system is anti-seismic. Aggregation on a single level is the fastest and most usable alternative. Each module is a functional unit that allows you to build a system with self-sufficient modules. The modules are easy to build and transport, because they are made up of three basic elements pre-assembled, thermally insulated and equipped with cavities for facilities. They are linked on site through a system of joints and mechanical connections, which ensures easy assembly and disassembly without damage and the possibility of re-use of constituents at the end of the life cycle. The chosen insulation is based on lime and hemp, which is a completely natural, lightweight, breathable, fire resistant and above all able to lower the CO2 levels of the environment. In addition, the modules are raised from the ground with natural ventilation, which helps to isolate the system from the ground. On the base there is a tank of water connected to a boiler. The water is used for the sinks, flush, shower and for the heating floor system. On the base there is a sewage hunk, in the same way as the camper. The horizontal and vertical curtain wall are built in recycled wood. The host island of tiny shelter has different functions: the hospitality shelter, where homeless can get information and be accepted; the common shelter as a space for sharing experiences and do activities together; the listening and infirmary shelter to confront the homeless and take care of him; kitchen with a big table, storage and services for men and women. The shelter for bedrooms can be single room or double. Some double rooms has the possibilities to add beds into bunk beds. Each module can be used by disabled people by the ramp at the entrance. Every module for kitchen and bathrooms has an independent water system, heating system and electricity system. Panels are useful for users and even for citizens. Their colors, their shapes and logos are very catchy for common people that will be curious about what it is going on inside the tiny shelter and this flow may help the cause to have more resonance. Panels help to identify the functions of each module. Since modules aggregation has to be adaptable to different places, the combination of the modules could change and the panels could easily orient the customers.

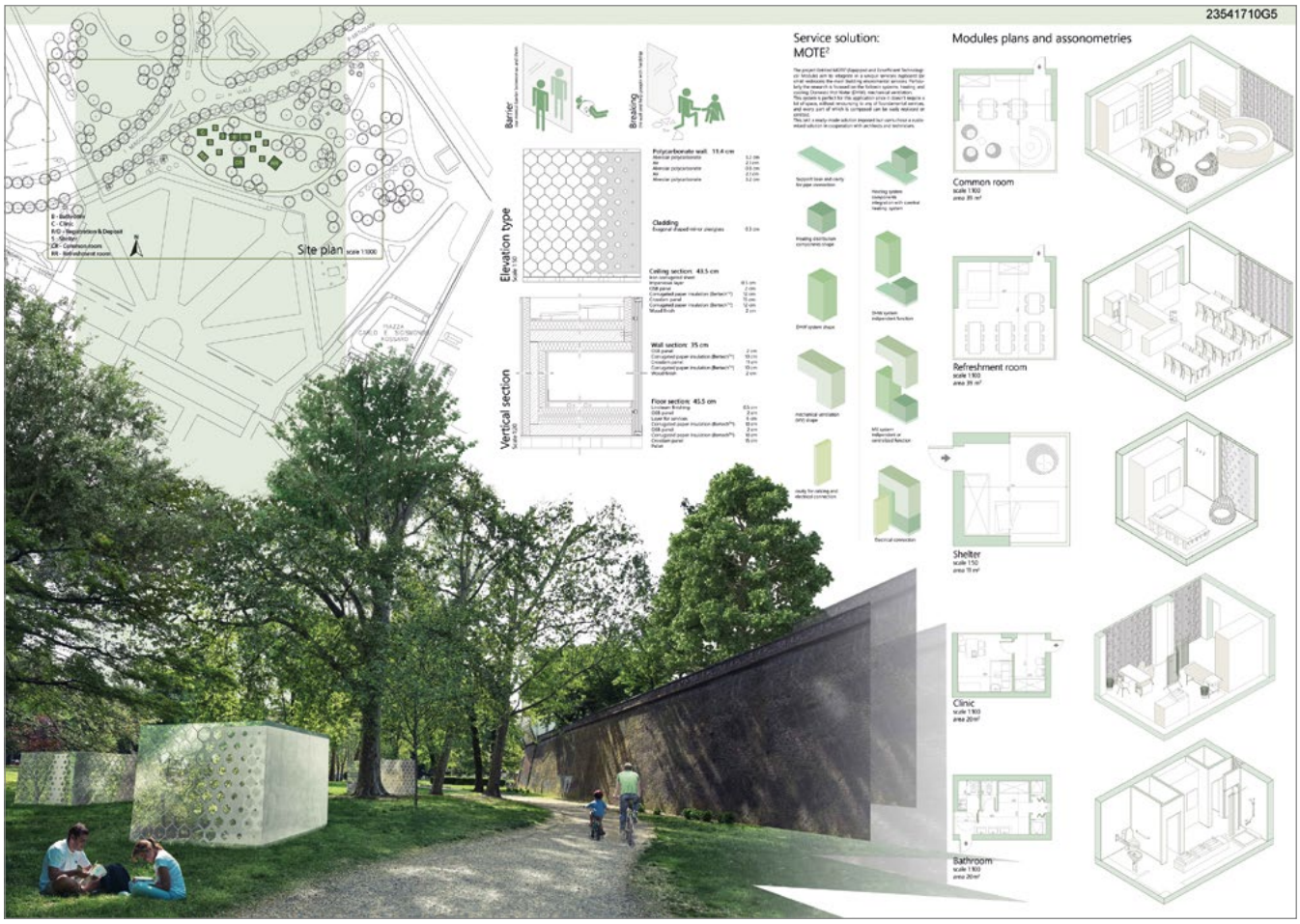

513018111R7
Home+
Tiny Shelter
GIARDINI REALI INFERIORI VIEW
INTERIOR VIEW - ONE OF THE OPTION FOR DOUBLE ROOM
INTERIOR VIEW - COMMON SPACE
a. single shelter
b. double shelter
b. listening shelter
c. kitchen shelter
c. hospitality shelter
d. storage shelter
d. services shelter
a. common shelter
PANELS AND FUNCTIONS
ADAPTABILITY TO AREA 1 : TEATRO DI TORINO
DETAIL OF TWO JOINED MODULES 1:50
PLAN 1:100
GIARDINI REALI INFERIORI
ADAPTABILITY TO THE CLIMATIC CONTEXT
HOSPITALITY SHELTER
WAITING SHELTER
COMMON SHELTER
LISTENING AND INFIRMARY
KITCHEN SHELTER
STORAGE SHELTER
DOUBLE ROOM SHELTER
FLEXIBLE ROOM SHELTER
W.C WOMEN AND SERVICES
W.C MEN AND SERVICES
Flat Roof
Roof 20%
Roof 45%
ASSEMBLY AND DISASSEMBLY
1-Laying of the hexagonal base
2-Fixing of two frames
3-setting of the first hexagonal frame
4-Fixing of the other two frames and side of the hexagon frames
5-scrolling of the angular panels on the buffered frame
6-scrolling of the angular panels on the buffered frame
7-Closing horizontal (flat roofs at a 7%w)
ELEVATION AA 1:100
SECTION BB' 1:100

5th

23541710G5
Mote²

FRANCESCO ROSA BRUSIN

TORINO

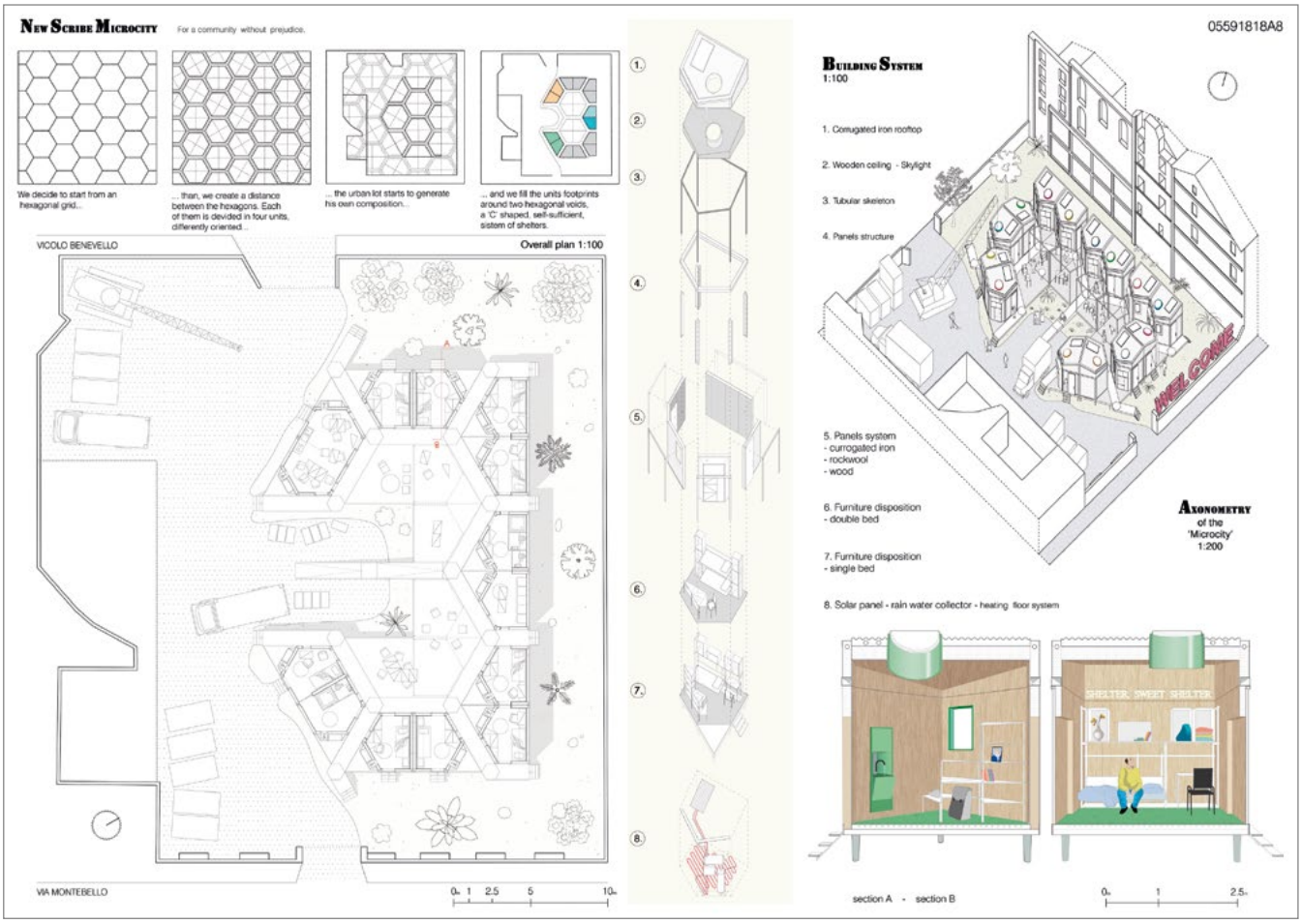


6th

05591818A8
New Scribe Microcity

CONCETTA TAVOLETTA, FABIO BARATTO, ANTONIO SORECA, GIANMARIA RADICE, KUN PENG, ROSALIA MEZZACAPO

AVERSA (CE)



7th

22273018U5
Home+ no more homeless

ALBA PIZZORNI, MARIA PIZZORNI

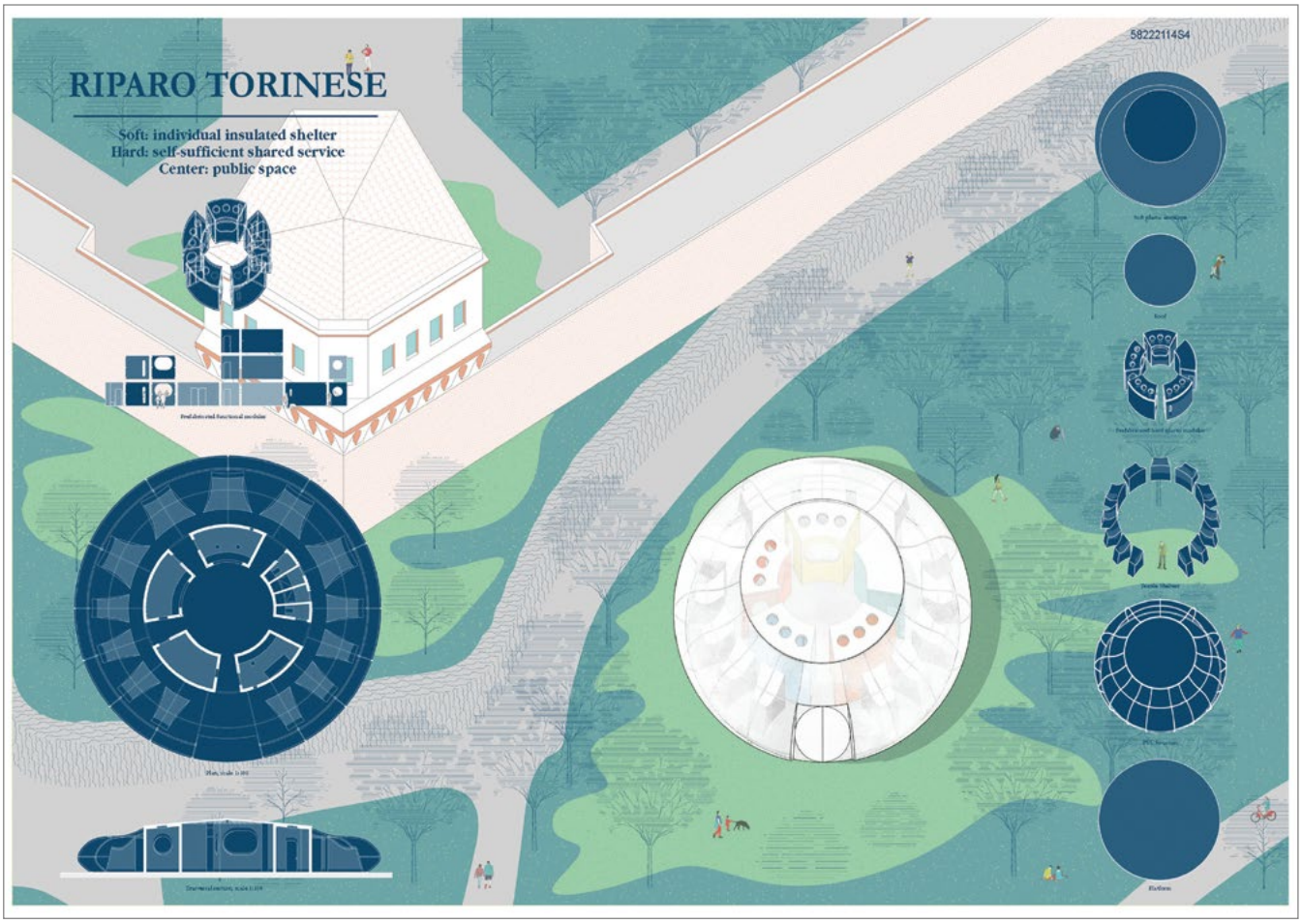
AVIGLIANA (TO)

8th

58222114S4
Riparo Torinese

LEONARDO CANFAILLA, GIULIO GALASSO, LORIS LUIGI PERILLO, SILVIO LUSSANA

NEGRAR (VR)

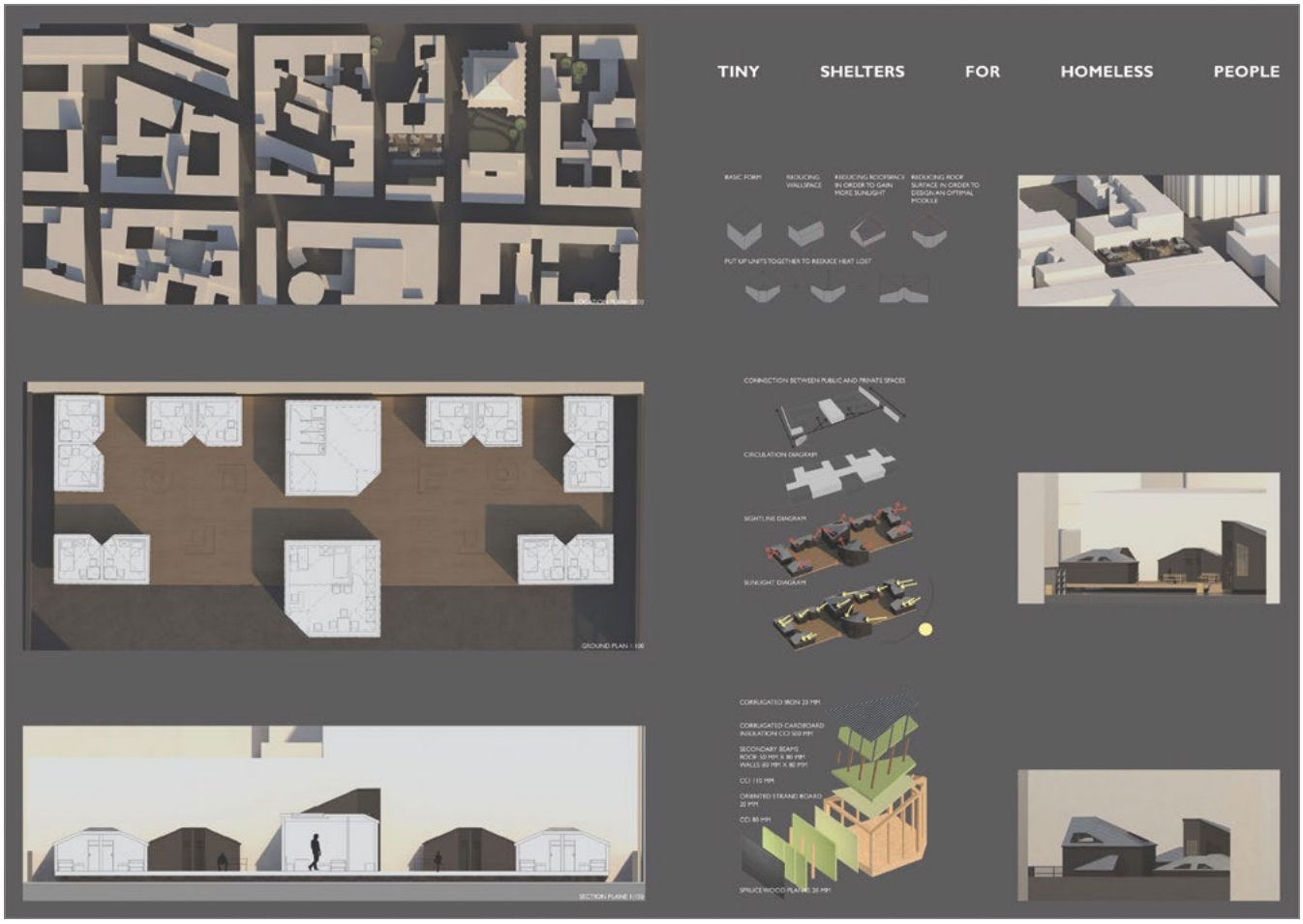


9th

18022817G5
Tiny shelters for homeless people

DIANA ALEKSOVA, PETYA IVANOVA

BERLIN

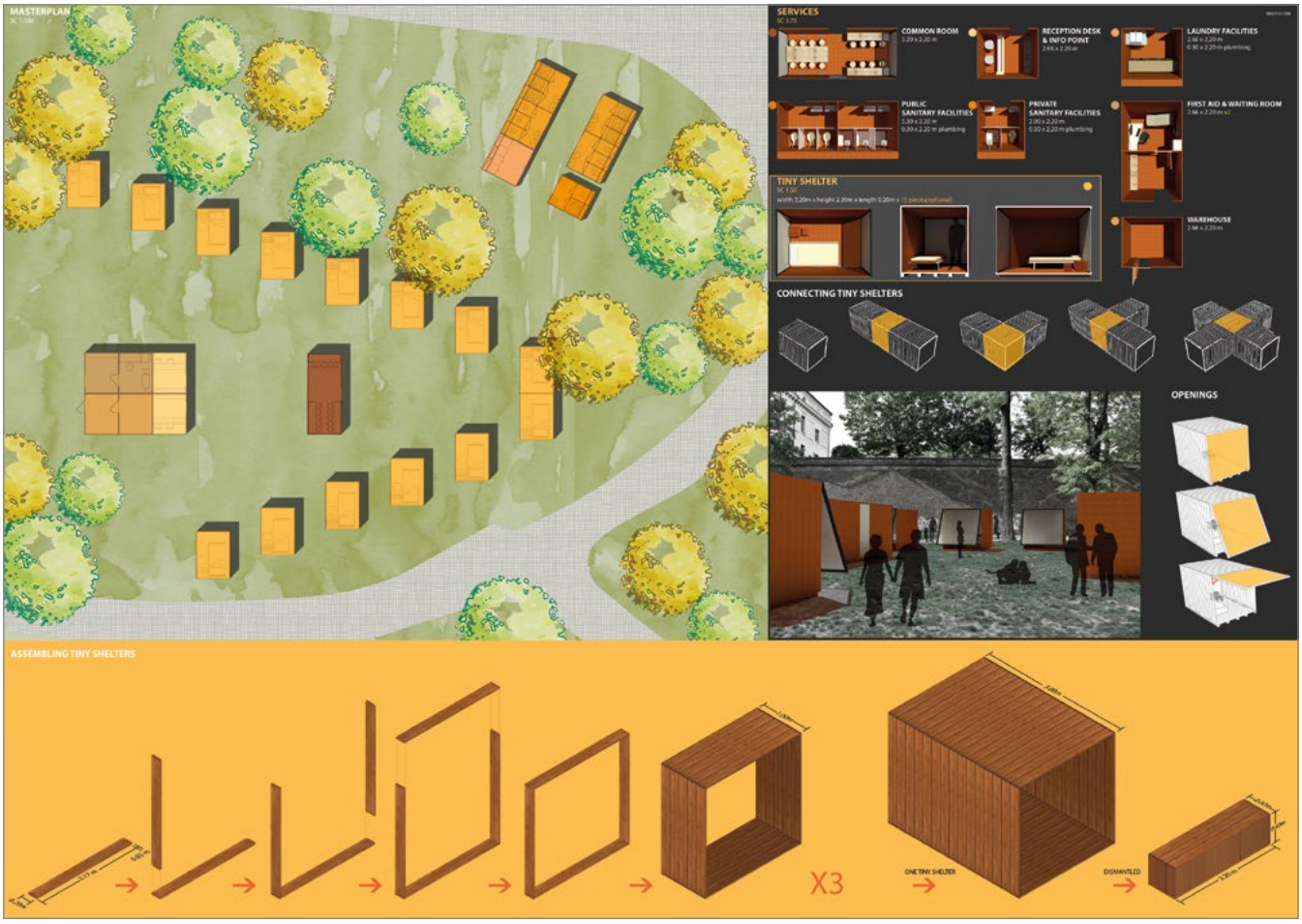


10th

0649141506

LAURA ROMANÒ, SARA FARZI

MILANO



11th

3845261008
JustAMan

ONUR DEMIR

TORINO